



FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 25

[IB Docket No. 21-456; RM-11855; FCC 21-123; FR ID 66659]

Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Federal Communications Commission (FCC or Commission) proposes to revise its rules governing spectrum sharing among non-geostationary satellite orbit, fixed-satellite service (NGSO FSS) systems. The FCC proposes that its existing spectrum sharing mechanism for NGSO FSS systems will be limited to those systems approved in the same processing round. The FCC also proposes to adopt a rule providing that later-round NGSO FSS systems will have to protect earlier-round systems, and invites comment on how to define such protection. In addition, the FCC seeks comment on whether to sunset, after a period of time, the interference protection afforded to an NGSO FSS system because of its processing round status.

DATES: Comments are due on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]; reply comments are due on or before [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by IB Docket No. 21-456, by any of the following methods:

- *Electronic Filers.* Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs>.
- *Paper Filers.* Parties who file by paper must include an original and one copy of each filing.

Filings may be sent by commercial overnight courier, or by first-class or overnight U.S.

Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street NE Washington, DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. *See* FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20-304 (March 19, 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

People with Disabilities. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), or to request reasonable accommodations for filing comments (accessible format documents, sign language interpreters, CART, etc.), send an email to FCC504@fcc.gov or call 202-418-0530 (voice) or 202-418-0432 (TTY).

FOR FURTHER INFORMATION CONTACT: Clay DeCell, 202-418-0803.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Proposed Rulemaking, FCC 21-123, adopted December 14, 2021, and released December 15, 2021. The full text is available online at <https://docs.fcc.gov/public/attachments/FCC-21-123A1.pdf>. The document is also available for inspection and copying during business hours in the FCC Reference Center, 45 L Street NE, Washington, DC 20554. To request materials in accessible formats for people with disabilities, send an email to FCC504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

Comment Filing Requirements

Interested parties may file comments and reply comments on or before the dates indicated in the DATES section above. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS).

***Ex Parte* Presentations**

Pursuant to 47 CFR 1.1200(a), this proceeding will be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with 47 CFR 1.1206(b). In proceedings governed by 47 CFR 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

Paperwork Reduction Act

This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, therefore, it does not contain any proposed information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

Synopsis

I. INTRODUCTION

In this notice of proposed rulemaking (NPRM), the Commission builds upon its efforts to update rules governing a new generation of non-geostationary satellite orbit, fixed-satellite service (NGSO FSS) systems. In an accompanying Order, we grant in part a petition for rulemaking filed by Space Exploration Holdings, LLC (SpaceX). In the NPRM, we seek comment on further revisions to the spectrum sharing requirements among NGSO FSS systems. We propose that the Commission's existing spectrum sharing mechanism for NGSO FSS systems will be limited to those systems approved in the same processing round. We also propose to adopt a rule providing that later-round NGSO FSS systems will have to protect earlier-round systems, and invite comment on how to define such protection. In addition, we seek comment on whether to sunset, after a period of time, the interference protection afforded to an NGSO FSS system because of its processing round status. This rulemaking will continue to facilitate the deployment of NGSO FSS systems capable of providing broadband and other services on a global basis, and will promote competition among NGSO FSS system proponents, including the market entry of new competitors.

II. BACKGROUND

In recent years, the Commission has received an unprecedented number of applications for NGSO space station licenses, including for NGSO FSS systems. Applications for NGSO FSS system licenses are considered in groups based on filing date, under a processing round procedure. The Commission reviews each application in the processing round

and all the pleadings filed in response to each application. Based upon this review and consideration of such other matters as it may officially notice, the Commission will grant all the applications for which the Commission finds that the applicant is legally, technically, and otherwise qualified, that the proposed facilities and operations comply with all applicable rules, regulations, and policies, and that grant of the application will serve the public interest, convenience and necessity.

The Commission has adopted rules for spectrum sharing among NGSO FSS systems. NGSO FSS operators must coordinate with one another in good faith the use of commonly authorized frequencies. Absent a coordination agreement between two or more NGSO FSS satellite systems, a default spectrum-splitting procedure applies. Under the default spectrum-splitting procedure, whenever the increase in system noise temperature of an earth station receiver, or a space station receiver for a satellite with on-board processing, of either system, $\Delta T/T$, exceeds 6 percent due to interference from emissions originating in the other system in a commonly authorized frequency band, such frequency band will be divided among the affected satellite networks in accordance with the following: (1) Each of n (number of) satellite networks involved must select $1/n$ of the assigned spectrum available in each of these frequency bands; (2) the affected station(s) of the respective satellite systems may operate in only the selected ($1/n$) spectrum associated with its satellite system while the $\Delta T/T$ of 6 percent threshold is exceeded; and (3) all affected station(s) may resume operations throughout the assigned frequency bands once the threshold is no longer exceeded..

In the *NGSO FSS Report and Order*, the Commission stated that it will “initially limit” sharing under the $\Delta T/T$ of 6 percent threshold to qualified applicants in a processing round. The Commission explained that treatment of later applicants must necessarily be case-by-case based on the situation at the time, and considering both the need to protect existing expectations and investments and provide for additional entry as well as any comments filed by incumbent operators and reasoning presented by the new applicant.

On April 30, 2020, SpaceX filed a petition for rulemaking to revise and clarify the Commission's spectrum sharing rules for NGSO FSS systems. SpaceX proposes that the Commission codify protection rights for NGSO FSS systems from those systems authorized through a later processing round.

III. DISCUSSION

After review of the SpaceX Petition and the comments and opposition filed, we conclude that the record on the Petition discloses sufficient reasons to justify the institution of a rulemaking proceeding seeking further comment on such a proposal. Indeed, the Petition raises fundamental issues affecting the spectrum access rights of NGSO FSS systems. When the Commission recently considered and revised several important elements of NGSO FSS licensing, it left to "case-by-case" evaluations how NGSO FSS applications filed after a processing round would be treated. Since then, the Commission has initiated second NGSO FSS processing rounds in frequency bands subject to a prior processing round and gained further experience implementing a case-by-case approach to NGSO FSS applications filed after a relevant processing round. The time is ripe to consider updating the Commission's rules concerning these issues.

We therefore initiate a notice of proposed rulemaking to consider revisions to the treatment of NGSO FSS systems authorized through different processing rounds. We also seek comment on the application of any rule changes in this proceeding to existing licensees, grantees, applicants, and market access petitioners. Further consideration of these issues is appropriate because of the strong interest shown not only in multiple NGSO FSS applications, but also in the comments on the Petition. Given the Commission's 2017 rulemaking on NGSO FSS issues and the ideas already submitted in response to the petition for rulemaking, we believe that proceeding with a notice of proposed rulemaking at this stage will allow for fulsome comment of the issues without forcing the delay associated with an initial notice of inquiry.

In its Petition, SpaceX requests that the Commission revise or clarify the spectrum

sharing obligations that apply among co-frequency NGSO FSS systems authorized through different processing rounds. SpaceX proposes that the default spectrum-splitting procedure be expressly limited to those NGSO FSS systems authorized within the same processing round. Among systems authorized through different processing rounds, SpaceX proposes that later-round NGSO FSS systems protect earlier-round systems up to a specified interference-to-noise (I/N) level to be developed and adopted by the Commission, but that this protection should sunset after a period of time. SpaceX also argues that sharing of beam-pointing information should be explicitly required among NGSO FSS operators to facilitate interference analyses. We address and invite comment on these proposals, and also seek comment on alternative proposals raised in the comments, below.

A. Limiting the Default Spectrum-Splitting Procedure to Systems Authorized Through the Same Processing Round

While the Commission stated in the *NGSO FSS Report and Order* that it will “initially limit” the spectrum-splitting procedure to qualified NGSO FSS applicants in a processing round, there is no such limitation in the relevant rule text. SpaceX contends that NGSO FSS operators have planned, invested, and begun deploying based on their assessment of the specific characteristics of other participants in their processing round, and that these characteristics allow licensees to estimate the amount of spectrum likely to be available during a situation governed by the spectrum-splitting procedure. To provide greater certainty to NGSO FSS operators as to their future sharing environment, SpaceX proposes that the Commission adopt a rule providing that the existing spectrum-splitting procedure applies only to NGSO FSS systems authorized within the same processing round.

This proposal is consistent with Commission licensing decisions. In each recent NGSO FSS system license and grant of market access, the requirement to apply the default spectrum-splitting procedure has been limited to among NGSO FSS systems filed within the same processing round. We believe that adopting a rule limiting the existing spectrum-splitting

procedure to only NGSO FSS systems authorized within the same processing round will provide greater clarity and regulatory certainty to NGSO FSS system licensees and market access recipients, and therefore propose to adopt it. We invite comment on this proposal. This approach, if adopted, would eliminate the “case-by-case” consideration of how to treat later applicants relative to approved systems, which the Commission previously explained would take into account various factors, including the potential for additional entry. We seek comment on how limiting the existing spectrum-splitting procedure to NGSO FSS systems authorized within the same processing round will impact later applicants, including the potential for additional entry.

B. Protection of Earlier-Round Systems from Later-Round Systems

For an NGSO FSS licensee to invest potentially billions of dollars in a new system, SpaceX argues it must have some certainty that its spectrum rights will be maintained as later-filed NGSO FSS applications are considered. SpaceX therefore proposes that NGSO FSS systems filed in a later processing round be required to protect NGSO FSS systems authorized through an earlier processing round.

We believe that adopting this principle in our rules would clarify the rights and obligations of NGSO FSS system grantees. The protection of an NGSO FSS system from systems authorized through a subsequent processing round goes to the heart of the stability of interference environment the Commission intended to create through use of the processing round procedure. Indeed, the Commission’s licensing of a later-round NGSO FSS system has confirmed that it must protect earlier-round systems from harmful interference.

We therefore propose to adopt a rule that NGSO FSS licensees and market access recipients are entitled to protection from NGSO FSS systems authorized through later processing rounds. Specifically, we propose to adopt a rule providing that, prior to commencing operations, an NGSO FSS licensee or market access recipient must either certify that it has completed a coordination agreement with any operational NGSO FSS system licensed or granted U.S. market access in an earlier processing round, or demonstrate that it will not cause harmful interference to

any such system with which coordination has not been completed. We also discuss below alternative, specific protection criteria that could be developed for this proposed rule.

Notwithstanding a requirement to protect earlier-round NGSO FSS systems, we expect that coordination among NGSO FSS operators, including those authorized through different processing rounds, offers the best opportunity for efficient spectrum sharing. Accordingly, we also propose to adopt a rule providing that the good-faith coordination requirement applies among all NGSO FSS grantees, including those authorized through different processing rounds. We invite comment on these proposals, including on the burdens associated with any technical demonstrations of compatibility. In particular, we invite comment on how best to establish the protection of authorized NGSO FSS systems under deployment while encouraging competition and new entrants into the market.

C. Level of Protection for Earlier-Round Systems

To quantify the level to which a later-round NGSO FSS system would have to protect an earlier-round system, SpaceX recommends the Commission develop and adopt an appropriate interference-to-noise (I/N) limit. While not proposing a specific I/N value, SpaceX suggests that such a limit incorporate a standard reference antenna mask and standard noise temperature. Applicants in a later processing round would be required to demonstrate that their proposed systems could comply with the I/N limit based on a probabilistic analysis. In addition, such an I/N limit could specify a percentage of time during which the limit may be exceeded.

Beyond the initial difficulty of developing such an I/N limit for protection of NGSO FSS systems, commenters raise potential shortcomings of an I/N approach. Because the I/N limit would reflect generic NGSO system parameters and not the parameters of the NGSO system to be protected, it could provide insufficient protection to an NGSO system with especially sensitive antennas. Adoption of an I/N limit could also discourage coordination if either the earlier-round licensee or later-round licensee preferred to operate within the I/N limit rather than a negotiated alternative. Requiring applicants to perform interference analyses for the potentially

thousands of satellites authorized through previous processing rounds, many of which may never be launched, could also place undue burdens on new entrants, especially those with limited resources.

Commenters propose alternatives to an I/N limit that would provide for the protection of earlier-round NGSO FSS systems from later-round systems. ViaSat suggests the use of network performance degradation as an interference criterium. AST recommends the Commission consider an approach that is harmonized with Recommendation ITU-R S.1323-2 or RR No. 22.5L of the ITU Radio Regulations, which use for a protection criterion the increase of the percentage of the time allowance for the carrier-to-noise (C/N) value associated with the shortest percentage of time specified in the short-term performance objective of the system to be protected. O3b proposes that NGSO FSS systems authorized through different processing rounds make use of the existing spectrum-splitting mechanism, but that the earlier-round system be entitled to use 75% of the available spectrum and the later-round system be entitled to use 25% of the available spectrum, instead of the equal split applicable to NGSO FSS systems authorized through the same processing round.

We believe that quantifying a level of protection for earlier-round systems would clarify the rights and obligations of NGSO FSS licensees in different processing rounds. We invite specific comment on what an appropriate I/N limit would be to protect NGSO FSS systems, what an appropriate percentage of time would be during which the I/N limit may be exceeded, and what the standard reference antenna mask and noise temperature should be in developing an appropriate I/N value or other criteria. In addition, we invite comment on the alternative proposals above and on any other appropriate means to ensure protection of earlier-round NGSO FSS systems from later-round systems, while allowing meaningful new entry and encouraging operator-to-operator coordination as the first resort.

In particular, we invite comment on whether to adopt criteria based upon the percentage of degraded throughput experienced by the NGSO FSS system. Considering the degraded

throughput may be appropriate because most, if not all, modern NGSO systems will use adaptive coding and modulation (ACM) to allow maintaining a satellite connection in spite of signal degradation, but at lower throughput rates. Such criteria could be developed consistent with Recommendation ITU-R S.2131-0, “Method for the determination of performance objectives for satellite hypothetical reference digital paths using adaptive coding and modulation.” That recommendation suggests that satellite systems using ACM should be designed to meet performance objectives stated as either the packet error ratio or the spectral efficiency (bit/s/Hz) as a function of C/N. While this Recommendation does not provide specific values for the percentage of degraded throughput that should not be exceeded, we invite comment on establishing a limit under such a criteria. We also seek comment on specific values and on the suitability of this approach in general, including on the burdens of computing any limit that may be adopted under the alternatives set forth above. Should a degraded throughput analysis consider unavailability as well?

D. Sharing Beam-Pointing Information

The Commission’s rules require NGSO FSS operators to coordinate in good faith the use of commonly authorized frequencies. Beyond this general requirement, SpaceX proposes that earlier-round NGSO FSS system operators be specifically required to share data on their beam locations with later-round NGSO FSS system operators to facilitate analysis of and compliance with its proposed I/N metric. SpaceX argues that confidentiality or non-disclosure agreements could ensure that data is not used by competitors for any purpose other than avoiding interference, such as marketing. Several commenters raise concerns that a requirement to share beam data may be inefficient, impractical, or overly competitively sensitive in certain cases. One commenter also suggests the Commission adopt broader information sharing requirements for operator-to-operator coordination.

We believe that information sharing among NGSO FSS operators is essential to their efficient use of spectrum. Beyond our existing, flexible, good-faith coordination requirement, we

invite comment on whether to specify sharing of certain types of information, such as beam-pointing information, that may be necessary for the implementation of any spectrum-sharing solution or protection criteria between NGSO FSS systems. Such information sharing requirements could involve NGSO FSS systems authorized through the same processing round or different processing rounds. We also seek comment on any practical concerns associated with such information sharing, and how best to address any associated, potential, competitive harms. For example, should the Commission adopt rules or mechanisms, for example, a protective order, to facilitate the sharing of the information? More broadly, should we add a definition of “good faith” coordination in our rules? If so, what elements should it include? For example, should NGSO FSS operators specifically be required to share all necessary technical information to perform an interference analysis, and do so in a timely fashion upon request, to meet the “good faith” coordination standard? We also seek comment on how the Commission might encourage NGSO FSS operators to build and deploy systems capable of sharing beam-pointing data and enabling other methods of spectrum sharing through coordination. How could the Commission encourage the development and deployment of systems that are more spectrally efficient? How might the Commission modify its NGSO sharing rules to incentivize flexible and efficient deployment?

E. Sunsetting of Protection

SpaceX proposes that the protection of earlier-round systems from later-round systems sunset after a period of time. SpaceX argues that a sunsetting provision would encourage earlier-round licensees to coordinate with later-round licensees, and avoid entrenching incumbents and stymieing future innovation. One commenter similarly argues that processing rounds may be “condensed” and protections sunset over time. Sunsetting could occur, for example, six years after licensing to coincide with the first NGSO system deployment milestone, ten years after licensing, or fifteen years after licensing. Other commenters argue that any sunsetting provision would be arbitrary, premature, or unnecessary given the Commission’s existing good-faith

coordination requirement.

We invite comment on sunseting of protections applied to NGSO FSS systems, including the timing of such sunseting. In particular, we seek comment on whether sunseting protection for NGSO FSS systems under deployment would unduly disrupt their operations. Should we consider sunseting protections for an NGSO FSS system before the expiration of its 15-year license term? Would a shorter sunset period better promote competition? If so, when should the trigger/start date for sunseting begin? At the date of the license grant, the beginning of the license period, or some other time? Should we expect that advances in technology for second-generation NGSO FSS systems will make sharing with new entrants easier? Or, conversely, would allowing new entrants to take advantage of technological enhancements in incumbent systems dull the incentives for incumbents to invest in such upgrades? What protection should apply to an NGSO FSS system after any sunseting? How would sunseting of protections affect the willingness to invest in NGSO FSS system development, and the likelihood of robust services being deployed to the public by such systems? Would a sunseting provision promote competition, including the market entry of new competitors? Are there other ways to fashion a sunseting provision that would maintain the reasonable expectations of earlier licensees and at the same time further the goal of promoting competition?

F. Application of Rule Changes

NGSO FSS systems and system proposals currently have a variety of Commission approval statuses, including pending applications for new systems and authorizations for systems that were filed for in a previous processing round. Because of the large investments already made and planned for these novel and ambitious systems, we seek comment on whether to apply all, or some, of the rule changes adopted in this proceeding, including changes to the good-faith coordination requirement, only to new license applications, license modification applications, application amendments, and market access petitions filed after the new rules go into effect. Maintaining the expectations of current licensees, market access recipients, applicants, and

market access petitioners may serve the public interest by providing regulatory stability upon which these systems may continue to develop. However, we invite comment on whether applying rule changes to existing grantees or pending applicants would advance competition and encourage new entry into the market. If we did apply new rules to existing grants or pending applications, should we allow the grantees and applicants a period of time to request modification of their authorizations or to amend their applications before the new rule changes take effect? To the extent that we apply the revised rules to existing grants or pending applications, we seek comment on the costs and benefits of applying the rule changes to existing grantees or pending applicants that are part of already-closed processing rounds. How would this affect expectations of existing grantees or applicants who have filed by specific deadlines to gain entry into a particular processing round? If we decide not to apply new rules to existing grantees, what impact, if any, would that have on existing grant conditions already incorporated into NGSO FSS system authorizations, including those grants conditioned on compliance with rules or policies adopted by the Commission in the future?

G. Digital Equity and Inclusion

Finally, the Commission, as part of its continuing effort to advance digital equity for all, including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations and benefits (if any) that may be associated with the proposals and issues discussed herein. Specifically, we seek comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well the scope of the Commission's relevant legal authority.

IV. INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act (RFA), the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a

substantial number of small entities by the policies and rules proposed in this NPRM. We request written public comments on this IRFA. Commenters must identify their comments as responses to the IRFA and must file the comments on or before the dates indicated in the DATES section above and in accordance with the comment filing requirements. The Commission will send a copy of the NPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration. In addition, the NPRM and IRFA (or summaries thereof) will be published in the **Federal Register**.

A. Need for, and Objectives of, the Proposed Rules

In recent years, the Commission has received an unprecedented number of applications for NGSO space station licenses, including for NGSO FSS systems. Traveling closer to the Earth than a traditional GSO satellite, low- and medium-orbit NGSO FSS satellite constellations are capable of providing broadband services to industry, enterprise, and residential customers with lower latency and wider coverage than was previously available via satellite. This rulemaking will continue to facilitate the deployment of NGSO FSS systems capable of providing broadband and other services on a global basis, and will promote competition among NGSO FSS system proponents, including the market entry of new competitors.

The notice of proposed rulemaking (NPRM) seeks comment on proposed revisions to the Commission's rules governing the treatment of NGSO FSS systems filed in different processing rounds. In particular, the NPRM proposes that the Commission's existing spectrum sharing mechanism for NGSO FSS systems will be limited to those systems approved in the same processing round. The NPRM also proposes to adopt a rule providing that later-round NGSO FSS systems will have to protect earlier-round systems, and invites comment on how to define such protection. In addition, the NPRM seeks comment on whether to sunset, after a period of time, the interference protection afforded to an NGSO FSS system because of its processing round status.

B. Legal Basis

The proposed action is authorized under sections 4(i), 7(a), 303, 308(b), and 316 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 157(a), 303, 308(b), 316.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules May Apply

The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the proposed rules, if adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

Satellite Telecommunications. This category comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications." Satellite telecommunications service providers include satellite and earth station operators. The category has a small business size standard of \$35 million or less in average annual receipts, under SBA rules. For this category, U.S. Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year. Of this total, 299 firms had annual receipts of less than \$25 million. Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

The NPRM invites comment on potential changes to the spectrum sharing requirements among NGSO FSS satellite systems. Because of the costs involved in developing and deploying an NGSO FSS satellite constellation, we anticipate that few NGSO FSS operators affected by

this rulemaking would qualify under the definition of “small entity.”

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rules for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”

The NPRM invites comment on different means to protect NGSO FSS systems licensed through the Commission’s processing round framework, including, as one option, whether those NGSO FSS systems authorized through a later processing round should be required to submit technical demonstrations that they will not interfere with NGSO FSS systems authorized through an earlier processing round. The NPRM invites specific comment on the burdens associated with such submissions, and also seeks comment on alternative means of protection of NGSO FSS systems.

F. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rules

None.

V. ORDERING CLAUSES

Accordingly, IT IS ORDERED, pursuant to 47 CFR 1.407, that the petition for rulemaking filed by Space Exploration Holdings, LLC, Revision of Section 25.261 of the Commission’s Rules to Increase Certainty in Spectrum Sharing Obligations Among Non-Geostationary Orbit Fixed-Satellite Service Systems, RM-11855, IS GRANTED IN PART AND DEFERRED IN PART, the opposition filed by WorldVu Satellites Limited IS DENIED IN

PART AND DEFERRED IN PART, and the opposition filed by Theia Holdings A, Inc. IS DEFERRED.

IT IS FURTHER ORDERED, pursuant to 47 U.S.C. 154(i), 157(a), 303, 308(b), 316, that this Notice of Proposed Rulemaking IS ADOPTED.

IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center will send a copy of this Order and Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with Section 603(a) of the Regulatory Flexibility Act, 5 U.S.C. 601 et seq.

List of Subjects in 47 CFR Part 25

Administrative practice and procedure, Satellites.
Federal Communications Commission.

Marlene Dortch,

Secretary.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 25 as follows:

PART 25 – SATELLITE COMMUNICATIONS

1. The authority citation for part 25 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 307, 309, 310, 319, 332, 605, and 721, unless otherwise noted.

2. Amend § 25.261 by revising paragraph (b), revising the first sentence in paragraph (c)(1), and adding paragraph (d) to read as follows:

§25.261 Sharing among NGSO FSS space stations.

* * * * *

(b) *Coordination.* NGSO FSS licensees and market access recipients must coordinate in good faith the use of commonly authorized frequencies regardless of their processing round status, unless otherwise provided by the Commission.

(c) * * *

(1) Each of n (number of) satellite networks involved that were licensed or granted market access through the same processing round must select $1/n$ of the assigned spectrum available in each of these frequency bands. * * *

* * * * *

(d) *Protection of earlier-round systems.* Prior to commencing operations, an NGSO FSS licensee or market access recipient must either certify that it has completed a coordination agreement with any operational NGSO FSS system licensed or granted U.S. market access in an earlier processing round, or demonstrate that it will not cause harmful interference to any such system with which coordination has not been completed.

[FR Doc. 2022-01204 Filed: 1/21/2022 8:45 am; Publication Date: 1/24/2022]